The alternative would also offer substantial short-run savings. Even with the additional procurement costs for nine additional Trident submarines, savings in budget authority in the period 1984-1988 would total $19.9 billion (see Table 8). Most of these savings would stem from cancellation of the MX deployment.

ALTERNATIVE 3: CANCEL THE B-1B AND RELY MORE HEAVILY ON B-52s AND CRUISE MISSILES

The Administration is proposing the purchase of 100 B-1B bombers as the initial part of its modernization effort for the strategic bomber force. Of these, 90 would be deployed as primary authorized aircraft, with the remainder in a "pipeline" for training and maintenance. The first squadron of B-1B bombers would be ready for service in 1986; all would be available by 1988. So far the Congress has appropriated funds for eight B-1Bs; the Administration requests funds for ten more in 1984.

The B-1B is intended as a near-term modernization program that will provide capability quickly, before most other new strategic systems become available. Later, in the 1990s, the Administration plans to deploy the Advanced Technology Bomber (ATB), a "stealth" aircraft designed to make detection by enemy radars very difficult. In addition to these new bombers, the Administration plans to field about 3,200 air-launched cruise missiles in the 1980s and early 1990s. These would be carried on existing B-52 bombers and eventually on the new B-1Bs.

An Alternative Bomber Program

Questions have been raised as to the need for purchasing the B-1B bomber, given that the ATB is to be available in the early 1990s. If the B-1B program was terminated, the United States could rely on B-52s and air-launched cruise missiles (ALCMs) in the near term while awaiting the ATB in the 1990s. In conjunction with this, three actions could be taken to improve the capabilities of the existing bomber force.

First, both to maintain numbers of available weapons in the near term and to produce more ALCMs than in the Administration plan, the production rates of the ALCM could be maintained at approximately 440 per year through the mid-1980s. The Administration has proposed curtailing the production of the current-generation ALCM after 1983 in favor of an advanced cruise missile (ACM), which is apparently better able to avoid detection by enemy radar and will have longer range--an important feature. The schedule for introducing the new ACM is not yet clear because the program details of the ACM remain classified and because the Administration has not stated whether it intends to proceed with the ACM exclusively or in combination with the current ALCM. The above alternative would incorporate the ACM in the near term only if it could be made available in the numbers needed to sustain the 440 missile production rate. Otherwise, more of the current-generation ALCM would be produced, while phasing in the new advanced missile as it became available, perhaps later in the 1980s. 11/ Eventually 3,600 missiles would be deployed instead of the 2,880 apparently intended under the Administration plan.

Second, those G models of the B-52 that under the Administration's program were to be converted to carry ALCMs only externally would also be converted in the same time period to carry ALCM internally. This would expand the maximum ALCM load on B-52Gs from 12 to 20, and they would continue in service through the end of the century. The G model is the older of the two major remaining models of the B-52, and is currently scheduled for retirement in the mid-1990s.

Third, in the absence of the B-1B, the B-52H would act as the main force of penetrating bombers through the late 1980s and into the early 1990s, pending deployment of the ATB. To this end, its modification to carry cruise missiles would be delayed about two years; in the late 1980s it would carry cruise missiles as well as act as a penetrator. Only in the early 1990s, when the ATB entered the fleet, would these aircraft assume the single role of cruise missile carrier under this option. 12/

Since the B-52s would, in some cases, be retained longer or given more arduous duty under this option than under the Administration plan, additional modifications beyond those in the plan might be needed. These would increase reliability, maintainability, and survivability as well as provide more cruise missile capability for some B-52Gs. The costs of these improvements are taken account of in the savings for the alternative shown in Table 8.

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11. It might be feasible to upgrade the current ALCM to improve its flight and penetration characteristics. Such upgrades might include electronic countermeasures, a better engine, and some reduction of radar detectability.

12. Accelerating the introduction of the ATB would relieve the B-52H of the penetrating bomber role sooner, but this study does not address that issue because of the security classification of the ATB program.

Advantages of the Administration Program

With these improvements in the B-52 fleet, the alternative bomber program would provide similar numbers of warheads either before or after a Soviet first strike as would the Administration program but at less cost. It would not, however, provide some of the advantages of the Administration program.

Ability to Penetrate Soviet Airspace. Estimates of post-attack capability do not take into account differences in the ability of the B-52, B-1B, and ALCM to penetrate Soviet air defenses. The Soviets have an extensive network of radars, missiles, and interceptor aircraft designed to shoot down U.S. strategic bombers and cruise missiles. With its lower radar detectability and better countermeasures, the B-1B should have a better chance of penetrating these defenses in the event of nuclear war than B-52 aircraft. 13/ Some DoD officials even believe it to have better penetration capabilities than the current ALCM, although the ALCM is physically many times smaller than the B-1B. 14/

Other Factors Favoring the B-1B. The B-1B would also provide a hedge against uncertainties in the Advanced Technology Bomber program. The ATB, which is designed to be difficult to detect by many types of radar, might be better than the B-1B at avoiding Soviet air defenses. But Administration spokesmen argue that it would be imprudent to wait until the ATB technology matures. If that technology proved disappointing, the United States would be left with only B-52 aircraft that might find it increasingly difficult to penetrate Soviet defenses. This could eventually leave the

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13. Estimates of the probability of penetration are not publicly available. As an example, however, assuming that in 1990 the B-1B could penetrate the Soviet Union and reach its targets with a probability of 0.75, while the B-52 and ALCM had only a probability of 0.50, then in an attack with warning a force of B-1Bs would have 27 percent more warheads surviving a Soviet first strike and eventually reaching their targets than would a force of B-52s carrying the same number of warheads. Of course, many additional and complex operational factors--specific assignments of bombers to targets, the relative value of those targets, and the number of defenses encountered by each bomber--would ultimately determine the relative contributions of the B-1B, B-52, and cruise missile.

14. See testimony of General Charles Gabriel, USAF, before the Senate Armed Services Committee, February 28, 1983.

United States without a credible force of penetrating bombers, reducing the effectiveness of U.S. forces on those missions--such as attacking mobile targets--for which a manned system would be preferred.

Purchase of the B-1B would also hold down the average age of the strategic bomber fleet. With the B-1B, U.S. strategic aircraft would average about 20 years of age in 1990; without it, they would average about 28 years. By 1996, when the Advanced Technology Bomber had entered service, the bomber force would average about 14 years of age with the B-1B and about 23 years without it. There is no definite age at which bombers must be replaced, but as their average age increases more money typically must be spent to keep them flying safely and effectively.

Because of its improved sensors, better penetration capability, and enhanced range-payload characteristics, the B-1B would also make a substantial contribution to U.S. conventional forces. It would, for example, provide a new aircraft capable of long-range missions in support of the Rapid Deployment Force.

An improved B-1B could also provide an alternative to buying the ATB. 15/ Development of both aircraft is said to be important to maintaining the benefits of competition. Given the need for a bomber that can be deployed quickly, the Administration points out that much research and development, flight testing, and construction of production facilities have already been undertaken for the B-1B program; accordingly, it argues for taking advantage of the investment.

Finally, proponents of the B-1B point out that failure to purchase a new aircraft in the near term would mean ultimately having to develop and procure a replacement for the B-52s as cruise missile carriers and conventional bombers sometime in the 1990s. They argue that handling a two-bomber program later would be no easier than handling one now.

Contributions to Warhead Counts Similar Under the Administration's Plan and the Alternative

The number of warheads available under the Administration's plan and under the alternative bomber program would be about the same, especially

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15. Press reports indicate that some development work has begun on a stealth version of the B-1, known as the B-1C. See Defense Daily, September 13, 1982, p. 27.

if measured before a Soviet attack: both would contribute about 4,300 warheads in 1990 and 4,800 warheads in 1996. All but about 1,000 of these weapons would be hard-target-capable. Both bomber forces would contribute about 34 percent of pre-attack warheads in 1990, and 37 percent in 1996. But the alternative bomber force would have more cruise missiles and the Administration force more gravity bombs. 16/ In fact, the number of weapons carried by the Administration force could be increased significantly--and a dominance established over the alternative--if more SRAMs (or a successor standoff weapon) were available. There are, however, no plans at present to build more SRAMs. 17/ Differences in the mix of weapons--cruise missiles as against bombs and SRAMs--carried by the two forces could lead to differences in the way the forces might be used and the way the Soviets might react to them. Cruise missiles, for example, are not amenable to ad hoc targeting, while bombs and SRAMs must be carried into Soviet air space for delivery.

Measured after a Soviet first strike, the number of surviving weapons in the Administration force would be somewhat greater than in the alternative. This is primarily because the B-1B is capable of escaping from its bases faster than the B-52, is more resistant to nuclear effects, and could probably sustain somewhat higher peaceime alert rates (see Appendix E for details). The post-attack contributions of each force to overall U.S. retaliatory capability are shown in Table 9. These results would not be substantially different under the proposed START agreement or under SALT.

Costs and Technology

Critics of the B-1B assert that developments in Soviet air defenses could conceivably make the B-1B obsolescent at the time of its deployment. Because of its inherent radar detectability, the B-1B would have to rely increasingly on electronic countermeasures--much as the B-52s do today--for survival. If these proved ineffective, the B-1B might be unable to penetrate Soviet airspace in large numbers. Others argue that U.S. ballistic

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16. In 1996, measured before a Soviet first strike, cruise missiles would make up about 70 percent of the weapons mix of the alternative force, instead of about 50 percent of the Administration force.

17. There have been press reports that the Air Force plans to develop a follow-on SRAM. See Clarence A., Robinson, Jr., "Technology Key to Strategic Advances," Aviation Week and Space Technology (March 14, 1983), p. 24.

TABLE 9. CONTRIBUTIONS OF TWO BOMBER FORCE ALTERNATIVES TO U.S. RETALIATORY CAPABILITY UNDER DIFFERENT SCENARIOS, 1990 AND 1996 (In percentages of surviving warheads)

	Surprise Attack		Attack with Warning	
	1990	1996	1990	1996
Administration Force	26	30	39	44
Alternative Force	22	27	38	43

missiles would have reduced Soviet air defenses by the time the bomber force arrived.

Relying on B-52s and air-launched cruise missiles would avoid much of the cost of near-term modernizing with the B-1B. The Administration estimates that it can procure 100 B-1B bombers for an investment of $20.4 billion in 1981 dollars ($27.8 billion in 1984 dollars). The General Accounting Office, citing independently derived estimates by the Air Force and the Office of the Secretary of Defense, suggests that the cost could amount to as much as $26.7 billion in 1981 dollars. The higher estimate is due mostly to a higher baseline estimate, as well as to the addition of items not currently funded in the B-1B program.

Critics of the B-1B also fear that its high cost may impede funding of the Advanced Technology Bomber, which they believe ought to be fielded as soon as possible. They contend that the ATB probably offers the best chance of penetrating Soviet air defenses, especially in the 1990s.

Savings from Terminating Procurement of the B-1B and Relying on B-52s and Cruise Missiles

If the Congress terminated further production of the B-1B at the end of fiscal year 1983, it would forgo the purchase of all but 8 aircraft of the 100 planned. By then, because of the program's structure, about onefourth of the total program cost would have been appropriated. In addition, the Air Force estimates that there would be termination liability costs of approximately $2.8 billion. 18/ Nonetheless, substantial savings could still be made in procurement as well as in operations and support funding.

Some of these savings would be offset by the costs of the alternative approach. B-52 aircraft would be kept in the fleet longer, and changes would be made to them. More cruise missiles would be purchased in the near term, as well as over the life of the program. Even so, termination of the B-1B would reduce budget authority by $12.8 billion from 1984 to 1988 and by $15.5 billion through the end of the century (see Table 8).

In the long run, of course, some of these savings might also have to be used to maintain the current size and capabilities of the bomber fleet: to procure a replacement for the B-52 in its cruise-missile carrying and conventional bomber roles, or to modify the B-52 further so as to keep it in service. Although these expenditures could be substantial, they might not be required until the late 1990s or the early 2000s.

SUMMARY AND CONCLUSIONS

The Administration's plan for the strategic offensive forces represents a buildup exceeding that experienced in this country in the past 20 years. The major thrust is force modernization: the addition of newer, more potent weapons systems and the eventual retirement of older, assured-destruction-type systems of the 1960s and 1970s. Contributing primarily to the buildup--and undergoing modernization in the process--would be the strategic bomber force (in the 1980s) and the sea-based forces (in the 1990s). Land-based forces would also be modernized in the 1980s with the MX and later, perhaps, with a follow-on missile such as the SICBM. By the mid-1990s the vast majority of strategic weapons would be capable of destroying hardened Soviet installations.

In examining alternatives to the Administration's plan, it appears that a substantial amount of money could be saved through the 1980s, with little change in the post-attack, quantitatively measurable attributes of the

18. Termination liability costs would include contractor expenditures and non-cancellable commitments, special termination costs and indemnification costs for capital investment incentives, unexpired lease/rental costs, and idle facilities.

forces, by choosing not to build and deploy the MX missile. Again, savings over the Administration's plan could be generated--also with little change in post-attack quantitative measures--by choosing other courses of action than fully modernizing the land-based missile force with a follow-on ICBM or than deploying the B-1B bomber. While any specific alternative would entail some change in quantitative capabilities, these may seem modest in comparison to the substantial buildup in overall capabilities.

Nonetheless, the Congress must weigh the choice of any alternative against the need to maintain the credibility of the U.S. strategic deterrent. For example, undertaking the apparently very large initial and ongoing costs of maintaining a land-based missile force may be necessary in order to minimize certain risks. Technological breakthroughs in anti-submarine or anti-air warfare that would render large portions of the sea-based and bomber forces ineffective represent one such set of risks. A devastating Soviet surprise attack or an attempt effectively to disarm the United States with a limited strike on its forces represent another set of risks that could be reduced by maintaining a survivable land-based missile force, with its high alert rate.

Likewise, the near-term modernization of the bomber force with the B-1B could be seen as helping to avoid the risk of a breakthrough in anti-submarine warfare, a failure of "stealth" technology to mature sufficiently, or continued difficulty in deploying a credible force of ICBMs.

In short, the Congress should avoid viewing decisions on specific strategic weapons systems in isolation. Rather, it should judge each alternative in terms of its effect on overall capabilities and risks, and hence on the ability of the United States to deter nuclear war.

APPENDIXES

APPENDIX A. SOME FUNDAMENTAL CONCEPTS OF LAND-MOBILE MISSILE SYSTEMS

The Administration's plan for modernizing the land-based missile force contains much uncertainty as to the missile system that will follow up on the initial deployment of the MX. It seems clear, however, that should the small, single-warhead ICBM proposed in the plan eventually be developed and deployed, a land-mobile system of some type would be the prime contender for the basing mode. Indeed, the rationale for moving toward small ICBMs (SICBMs) in the first place is the improved survivability achieved by their relative ease of mobility. The primary purpose of this Appendix is to highlight some of the important variables, characteristics, assumptions, and unknowns that would enter into the calculation of system effectiveness, and ultimately into the determination of the size of the system and its cost.

In order to demonstrate the potential effects of completing the Administration's plan, CBO assumes in this study that the SICBM would be deployed in the early 1990s in a land-mobile mode, the system sized to provide the roughly 600 surviving warheads projected by the Air Force for the MX in the closely spaced basing (CSB) mode.

SURVIVABILITY OF LAND-MOBILE MISSILES

The basic premise behind the land-mobile basing concept is to improve survivability by dispersing the missile force over an area large enough to make a successful attack unlikely. There are many ways of doing this. A system might roam the interstate highways; be confined to roads on federal or military lands; or be truly off-road mobile, again perhaps on federal lands. The missiles might be moved periodically in an unpredictable manner over the deployment area; or be kept in garrison, ready to dash out on warning of a Soviet attack.

The underlying principle in every case would be to confront Soviet targeters with large areas of uncertainty. Rather than pinpointing specific targets, they would be forced to barrage these areas. Depending on specific deployment characteristics, such an attack could deplete Soviet missile forces considerably. This would be the opposite of the situation that currently exists with vulnerable, silo-based MIRVed missiles, where one or two warheads aimed at each MIRVed missile have the potential to destroy several times the number of warheads used in the attack. 1/

Many factors contribute to the deterrent value of a land-mobile system. With the exception of the threat itself (which is an exogenous variable), each of these system parameters ultimately requires tradeoffs of cost and political feasibility with potential effectiveness. The list of these factors below, while not all-inclusive, indicates the scope of the problem.

Key Mobile System Parameters

Deployment Area. Of vital importance is the amount of land area available for deployment, the terrain and/or road characteristics, and the general physical security of the area. A truly road-mobile system could roam virtually the entire public highway system; a system requiring off-road mobility might be restricted to relatively flat terrain. Public acceptance would be vital in some of these deployment schemes.

Missile Transporter. The transporter vehicle parameters of interest would be resistance to nuclear effects (hardness), the speed at which the vehicle could travel in its normal mode (on- or off-the-road), physical security from sabotage, maintainability and reliability, and the vehicle's degree of endurance.

Missile. Missile characteristics affecting overall system survivability relate primarily to their guidance systems--two key issues being whether a missile has to be fired from a predetermined site and how long the missile has to remain stationary to align its guidance system.

Concept of Operation. Although not totally independent of the factors listed above, much flexibility remains in choosing the manner in which the mobile system would be operated. Some of the more interesting issues relate to the fraction of the force that would be kept out of garrison and dispersed, along with the manner in which it would be manned and maintained.

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1. The Office of Technology Assessment (OTA) points out that the area that could be barraged to a given level of overpressure is directly related to the amount of equivalent megatonnage (EMT) used in the attack. Thus, accuracy of delivery and numbers of warheads used are not as important. EMT, in turn, is correlated with missile

Threat. The expected threat--both the immediate threat and the potential threat that might develop in reaction--is obviously integral to determining the size and survivability of the mobile system. Key parameters here are the numbers and characteristics of the potential attacking force, and the form an attack might assume. For example, would the Soviets be likely to attack the system with short-time-of-flight, submarine-launched weapons, or would they choose to employ their more substantial land-based missile force? The degree to which the threat would be limited by arms control is also pertinent. Although it probably would not depend totally on arms limitations for its survivability, a land-mobile system could be made more cost-effective by constraints on those force characteristics--such as equivalent megatonnage (EMT)--that are most threatening.

Of vital interest would be the ability of the Soviets to detect out-of-garrison missiles and translate such information into usable targeting data. The time it takes to do this, plus missile time of flight, is called the "intelligence cycle" time. 2/ If this time interval was short, the survivability of the system could be reduced significantly.

Interrelationship of Factors

Decisions about each of the above factors are likely to be heavily interdependent. The amount of land needed for a given deployment concept, for example, would be contingent on the characteristics of the missile transporter and the number of vehicles to be stationed in the field. Likewise, changes in the size of the Soviet threat or in Soviet intelligence capabilities could dictate alterations in the concept of operation, and so on. Ultimately, many of the system parameters will be constrained by technological and political considerations. It would do little good, for example, to postulate a transporter vehicle very heavily hardened against nuclear blast if it is not feasible to build one; neither would it be plausible to assume that the nation's highways could be used for missile deployment if adequate security could not be provided or public acceptance gained.

A simple example of how these issues relate to one another may be useful. Suppose that a given number of expected surviving warheads--say 600--is desired from the land-mobile system using the single-warhead

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throwweight. See Congress of the United States, Office of Technology Assessment, MX Missile Basing (Government Printing Office, 1981).

2. Office of Technology Assessment, MX Missile Basing, p. 261.

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SICBM. Suppose further that an attack by up to 4,000 warheads with yields similar to the MIRVed versions of the SS-18 Soviet ICBM could be mounted, 3/ and that the Soviets have no way to target missiles that are dispersed out of garrison. Then Figure A-1 shows the relationship between missile transporter vehicle hardness, dispersal land area, and the number of missiles stationed in the dispersal area. This means that for the situation represented by a given point on the chart, the Soviet targeters must assume that the associated number of missiles could be anywhere in the dispersal area, or "area of uncertainty." Thus, for example, if vehicles hardened to 20 pounds per square inch (psi) overpressure could be deployed in an area of uncertainty of 50,000 square nautical miles (nm^2), then about 1,000 of them would have to be spread throughout this area to assure the requisite number of surviving warheads. 4/ The 50,000 nm^2 area is roughly the size of the state of Oklahoma. Likewise, if only about 17,000 nm^2 of land area was available for off-road vehicle use, 5/ then over 3,000 of the 20-psi vehicles would be needed in the field; on the other hand, 1,500 vehicles of 37 psi hardness, 6/ or 900 60-psi vehicles, would be equally effective.

On the other hand, if the Soviets were constrained by arms control, for example, to an attack of roughly half the size of the previous examples, then the U.S. situation could be eased considerably. An equal number of vehicles hardened to 12 psi instead of 20 psi would do; alternately, two-thirds of the land area of the example would provide equal survivability.

These examples suggest, however, that achieving numbers of surviving warheads greatly in excess of 600--the capability attributed to a follow-on missile in this study for illustrative purposes--would require large numbers of SICBMs.

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3. This would be a 2,500 EMT attack, and would require the use of about two-thirds of the current Soviet ICBM arsenal.

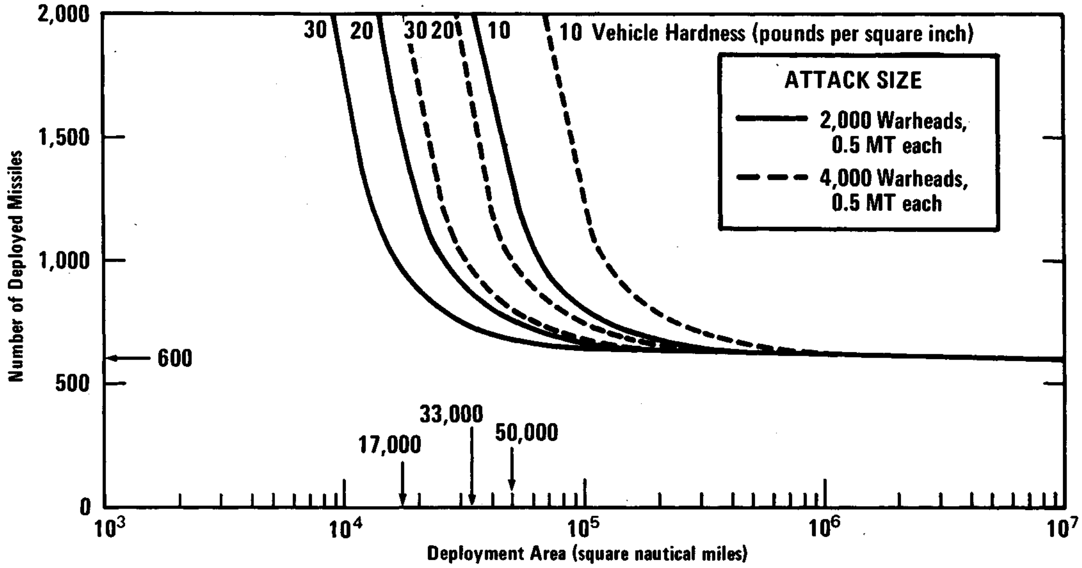
4. Many more vehicles and missiles might have to be purchased to support such a plan, depending on maintenance, personnel, and operational concepts.

5. OTA estimates that this is the amount of land owned in the southwestern United States by the Departments of Defense and Energy. See MX Missile Basing, p. 264.

6. This hardness value was given as representative of a so-called "Armadillo" mobile system. See Clarence A. Robinson, Jr., "Commission Studies Small ICBM," Aviation Week and Space Technology (February 21, 1983), p. 16.

Figure A-1.

Relationships Among Key Parameters for Deploying SICBM to Obtain 600 Surviving Warheads



SOURCE: Congressional Budget Office.

The area of uncertainty could be decreased significantly, and thus the number of required missiles increased, if a "Dash on Warning" operational concept was used for deploying the missiles. In such a scheme most transporters would be kept in garrison until receipt of warning of an attack, at which time they would disperse. Warning time and vehicle speed would then be crucial to survivability.

Soviet intelligence in targeting a land-mobile system would also affect the number of required missiles. Assume that the force of 1,000 20-psi vehicles was randomly dispersed over 50,000 nm^2. Based on the size of the attack and the characteristics of the deployed SICBM force, the expected survivability of the deployed vehicles would be about 60 percent if the Soviets had no knowledge of the missiles' whereabouts. If the vehicles could travel at an average speed of five knots, and the Soviet intelligence cycle was one-half hour, then assuming a 50 percent probability of detection of the vehicles and independence between detections--the Soviets could destroy the detected half of the force plus up to 25 percent of the undetected force--about 37 percent would survive. This example assumes virtually instantaneous retargeting of Soviet missiles. A 15-minute delay in retargeting would mean that the Soviets could not take advantage of the high probability of detection; a half-hour delay would render the Soviet system no better than the random barrage assumed earlier.

APPENDIX B. DETAILS OF THE STRATEGIC MODERNIZATION PROGRAM ASSUMED IN THE ANALYSIS

TABLE B-1. LAND-BASED MISSILE FORCE UNDER THE ADMINISTRATION'S MODERNIZATION PROGRAM (Not constrained by arms-control limits) (By fiscal year)

	1983	1984	1985	1986	1987	1988	1989
Titan II	43	34	23	11	-	-	-
MM II	450	450	450	450	450	450	450
MM III (Mk12)	250	250	250	240	200	150	150
MM III (Mk12A)	300	300	300	300	300	300	300
MX	-	-	-	10	50	100	100
SICBM	-	-	-	-	-	-	-

TABLE B-1. (Continued)

	1990	1991	1992	1993	1994	1995	1996 a/
Titan II	-	-	-	-	-	-	-
MM II	450	450	450	450	450	450	450
MM III (Mk12)	150	150	150	150	150	150	150
MM III (Mk12A)	300	300	300	300	300	300	300
MX	100	100	100	100	100	100	100
SICBM	-	-	20	200	500	800	1,000

a/ Numbers for all systems remain the same from 1996 through 2000.

TABLE B-2. STRATEGIC BOMBER FORCE STRUCTURE UNDER THE ADMINISTRATION'S MODERNIZATION PROGRAM (Not constrained by arms-control limits) (By fiscal year)

	1983	1984	1985	1986	1987	1988	1989
FB-111A	56	56	56	56	56	56	56
B-52G							
Penetrate a/	105	61	61	61	61	61	30 b/
Standoff-Penetrate c/	46	90	90	60	30	0	0
Standoff d/	0	0	0	30	60	90	90
B-52 H							
Penetrate	90	90	70	37	7	0	0
Standoff-Penetrate	-	-	20	53	83	63	13
Standoff	-	-	-	-	-	27	77
B-1B							
Penetrate	-	-	1	17	59	90	90
Standoff-Penetrate	-	-	-	-	-	-	-
ATB	-	-	-	-	-	-	-
ALCM e/	552	1,080	1,320	1,716	2,076	2,376	2,799
SRAM	1,125	1,125	1,125	1,125	1,125	1,125	1,125

NOTES: All values are in terms of primary authorized aircraft (PAA), an Air Force measure that takes account of the roughly constant 10 percent of total aircraft in the maintenance pipeline and thus not available for use. Unless otherwise noted, bombers are assumed to use penetration tactics for weapon delivery.

a/ "Penetrate" refers to the tactic of overflying the target area to deliver the weapon.

b/ The B-52G penetrators are shown retiring from their strategic nuclear force role. It is not clear at this point whether they would be retired altogether or become purely conventional bombers.

TABLE B-2. (Continued)

	1990	1991	1992	1993	1994	1995	1996 f/
FB-111A b/	56	56	30	0	0	0	0
B-52G							
Penetrate a/	0	0	0	0	0	0	0
Standoff-Penetrate c/	0	0	0	0	0	0	0
Standoff d/	90	90	90	90	60	30	0
B-52 H							
Penetrate	0	0	0	0	0	0	0
Standoff-Penetrate	0	0	0	0	0	0	0
Standoff	90	90	90	90	90	90	90
B-1B							
Penetrate	90	90	90	90	60	30	0
Standoff-Penetrate	0	0	0	0	30	60	90
ATB	-	-	15	47	79	111	120
ALCM e/	2,880	2,880	2,880	2,880	2,880	2,880	2,880
SRAM	1,125	1,125	1,125	1,125	1,125	1,125	1,125

c/ "Standoff-penetrate" means that the aircraft carries a mixed load of standoff weapons (ALCM) and bombs, and would remain clear of most defenses while launching the ALCM and prior to penetration.

d/ "Standoff" aircraft carry ALCM only and do not overfly the target area.

e/ These PAA numbers were derived from ALCM inventory numbers provided in Department of the Air Force Congressional Data Sheets for the President's fiscal year 1984 budget.

f/ Numbers for all systems remain the same from 1996 through 2000.